

SPECIAL ISSUE

South Sudan COVID-19 Preparedness

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Background

The nations of the world were confronted with a global health emergency after the World Health Organization (WHO) declared the COVID-19 outbreak a pandemic. Restrictions and regulations were imposed to reduce the spread of COVID-19. The recommendations from WHO and CDC (Centers for Disease Control and Prevention) formed the basis for limiting the spread of the virus but implementation has varied between countries.

The South Sudan government established a COVID-19 management structure with a High-Level Task Force (HLTF) chaired by the First Vice President Dr Riek Machar Teny soon after the declaration of the pandemic. This Task Force coordinates and communicates to the people of South Sudan the measures needed for the prevention of spread of the disease. The major decisions are border closures, travel restrictions, lockdown, and social distancing.

Limitations of the measures

- Lock down appears not to be effective
- Country not ready for case management
- No coordination in decision making and activity regarding COVID-19 management
- Minimal technical support. The taskforce is largely political, lacking significant academic and medical professional input.

Epidemiology and Surveillance

After confirmation of the COVID-19 index case on 5 April 2020, three more cases from Juba and Torit were confirmed by the National Public Health Laboratory bringing the number of confirmed cases to four with the most recent case on 10 April 2020.

Contacts have been listed and contact tracing is ongoing to monitor symptoms, isolate, and test for SARS-COV2. One of the confirmed cases was a contact of the index case, while another had no epidemiological link to any of the other cases and was asymptomatic.

A total of 151 people with symptoms suggestive of COVID-19 have been tested and their contacts traced; only four of the tested cases were positive. All positive cases were adults, three female and one male. One had been identified with an underlying pre-existing health condition, but the rest did not have any. Contact tracing and follow up for all the four cases and their contacts is ongoing.

Clinical symptoms and signs described by the four cases included dry cough, headache, running nose, breathlessness, body aches and fatigue.

The information being gathered includes detailed timelines of exposure of the patients, chronology of symptoms, and contacts in order to understand the transmission dynamics of COVID-19. WHO's investigation protocol for COVID-19 is being used in this exercise.

Rapid Response Teams (RRTs) conduct active surveillance, with sentinel sites in Juba Teaching Hospital and Al Sabah Children's Hospital to detect COVID-19 cases in patients with Influenza-like Illnesses (ILI) and Severe Acute Respiratory Infections (SARI).

Training sessions are being conducted by the Ministry of Health with support

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Training of health workers on COVID-19 (Source: WHO South Sudan)

from WHO for health care workers in these sentinel sites in Juba and with partners in some states in order to detect potential cases of COVID-19. Doctors from all disciplines are participating in the training.

South Sudan Quarantine Policy

Currently there is no nationally approved policy, however the High-Level Task Force recommends:

1. A person with symptoms and / or signs suggesting COVID-19 will be quarantined by the government at the John Garang infectious disease unit (IDU) for 14 days and discharged if they do not develop clinical signs of COVID-19 or show improvement.
2. A person coming from a high-risk country with active local transmission who has no signs and symptoms will have to be quarantined at the IDU for 14 days. This is done in the same facility for the same duration and will probably continue at home if they do not develop symptoms and signs. Follow up is by the Ministry of Health surveillance team.
3. A person coming from a low risk country (where there is COVID-19 but the person is unlikely to be infected) will have to self-monitor at home, but must contact the IDU by calling the designated number 6666 if they develop symptoms. They will be followed up by the Ministry of Health surveillance team.

Investigations

The number of samples tested from 5th – 10th April was 151; 3 females and one male (driver to one of the positive females) tested positive. The rest were negative. Those

tested included 93 contacts to these patients.

No other laboratory typing and sequencing is being done.

Leadership and Coordination

Coordination continues to evolve at National and State levels. At the National level, the High-Level Task Force (HLTF) meet frequently, chaired by the First Vice President to provide strategic guidance and support for the COVID-19 response. The COVID-19 National Steering Committee (formerly known as the National Task Force) is chaired by the Incident Manager, Dr Angok Gordon Kuol and co-chaired by a WHO Incident Manager from the local Juba office. Membership of the Task Force consist of Ministers, Undersecretaries and Director Generals from MOH, officials from Finance, the Trade Unions Chamber, the civil aviation authority and academicians from the University of Juba.

There is a Public Health Emergency Operation Centre (PHEOC) which supports the National Steering Committee and incorporates several Technical Working Groups (TWGs). At the State level, coordination with the PHEOC is through pre-existing arrangements previously set up for managing Ebola Virus Disease (EVD). Preparedness, coordination and further guidance is required to streamline the operation of PHEOC.

The need for a Safety, Security and Access TWG has been raised, to coordinate procedures for movement of humanitarian aid such as goods and supplies and to ensure safety of people moving away from congested areas. Careful management of sites for Internally Displaced Persons will hopefully mitigate risks of potential violence against health workers. Challenges and concerns about identifying potential COVID-19 persons at border crossings need to be addressed in one of the meetings of the HLTF.

Surveillance

Efforts to enhance community-based surveillance under the previously established Ebola preparedness plan have transitioned into the COVID-19 response.

The TWG continues to track, document, and analyse COVID-19 alerts. An “alert” is someone showing flu-like symptoms reporting to the COVID-19 designated facility by calling the number 6666. From 11 April there were 27 alerts in the dataset.

Case Management

Confirmed cases (i.e. with clinical symptoms and signs suggestive of COVID-19) are admitted to the IDU for management as per agreed HLTF protocol. The four positive patients were admitted and managed at Dr John Garang Infectious Disease Unit in Juba and were under quarantine during the reporting period. Their known contacts, who were isolated, were all discharged after test

results were returned negative for SARS COV-2.

Construction work to expand bed capacity at Juba Teaching Hospital has commenced, with support from WHO, with a target of increasing beds from 24 to 100. Four of these beds are equipped with ventilators to undertake mechanical ventilation should this become necessary. The rest are high dependency beds capable of administering oxygen to patients not ready for mechanical ventilation. The newly constructed modernised Emergency department at Juba Teaching is being prepared for potential surge in the admission of seriously ill COVID-19 patients.

Consistent with the policy of social distancing, remote (tele) training on Case Management by the International Non-Government Organisations, International Medical Corps (IMC) and ICAP commenced on 8 April using the online meeting and training facility, and zoom. Lectures to the health workers in the states use an ICAP facility.

The government continues to enforce measures to mitigate the spread of COVID-19 infection countrywide as mandated by the High-Level Task Force. This includes a curfew (from 20:00 hrs to 06:00 hrs), quarantine, social distancing, and frequent hand washing.

Restrictions on local air flights and public transport between and within States are in place.

International flights into and out of South Sudan are suspended, with some exceptions such as delivery of humanitarian services and personnel delivering humanitarian aid leaving the country. A 14 days' quarantine requirement is in place for any arrivals to the country, including through land border points.

Hand washing facilities have been distributed in public places in Juba and the States to enhance hygiene practices and mitigate spread of COVID-19.

To ensure sufficient infection prevention control supplies, partners were tasked to conduct an inventory of supplies and identify gaps for restocking items such as masks, gloves of all types, aprons, waste bins, and hand washing facilities.

Active COVID-19 screening at three International Organisation for Migration (IOM) - supported Ports of Entry (PoEs) - namely Juba International Airport, Wau Airport, and Nimule land crossing - is ongoing.

The TWG conducted a stakeholders' mapping of border areas, particularly in the towns of Nadapal, Kaya, Nimule, and Renk.

UNICEF in partnership with the South Sudan Council of Churches, engaged religious leaders to disseminate COVID-19 messages across the country during the Easter festive season.

Dissemination of COVID-19 text messages as well as a



Poster on COVID-19 outside triage tent at JTH in South Sudan
(Source: Frederick Tawad)

caller tune for all calls in English and Arabic is ongoing through MTN and Zain mobile phone networks in partnership with UNICEF and the Ministry of Health.

The Logistics Cluster (WFP, WHO, UNMISS) has not yet observed any impacts on partners' cargo transportation service requests due to COVID-19. All samples are ferried to the public lab for testing and hence the partners and agencies involved in the COVID-19 effort help with facilitation in their transportation.

The United States Agency for International Development (USAID) and an associated organisation codenamed OFDA have been requested by the HLTF to fund an additional caravan aircraft to assist with the transportation of COVID-19 samples from points of collection to the accredited test laboratory in Juba. The Government of South Sudan has no budget at the moment to fund this service.

Various United Nations agencies such as the World Food Programme (WFP) and the Logistics Cluster are working jointly to support the response to COVID-19 which includes provision of home testing kits, construction of field hospitals and maternity units in the context of this pandemic.

The major challenges

1. Improvement in health and laboratory infrastructure
2. Capacity building in terms of trained manpower (nurses, doctors, laboratory technicians and support staff)
3. Clearly defined infection control measures
4. Adherence to protocols for data collection and sharing with partners. This limits the ability to analyse epidemiologic trends and evaluate surveillance systems.

5. Limited sample Polymerase Chain Reaction (PCR) buffers enough for 500 reactions, increase the stock of N95 and gloves, sample extraction kits and VTMUTM, and payment of incentives for laboratory staff.
6. There is a time lag after reporting of laboratory results, which affects timely response and initiation of case investigation and follow-up of contacts.
7. The night time curfew poses difficulties for those with case management responsibilities
8. Insufficient production of teaching material and public health information posters.
9. While implementation of activities is ongoing under the COVID-19 Country Preparedness and Response Plan, funding remains challenging nationally and in the States.
10. Funding for COVID-19 must be earmarked. Resources available to date have largely been from re-programming funding under the Phase 3 Ebola Preparedness plan, with most funding ended on 31 March 2020.

Lack of Personal Protective Equipment (PPE) and ambulances

There is uncertainty of border crossing status for humanitarian cargo procurement from neighbouring countries, though consignments are currently still being allowed.

Self-quarantine preventive measures being imposed on transporters are expected to cause delays in humanitarian cargo delivery around the country.

Possible intervention alternatives

- strengthen and support the High-Level Task Force committee
- review the country's rapid response, surveillance and preparedness strategy
- massively review and enhance the infection prevention strategy
- create an isolation centre creation with adequate and appropriately trained staff, medical equipment and adequate supplies of reliable PPE.

Recommendations and Priority Follow Up Actions

Coordination and Leadership

While coordination arrangements at National level are increasingly clarified, more guidance is required at State level with improved linkages between National and State levels.

Surveillance and Future Arrangements

1. Further work is needed in joined up working between HLTF and Aid Organisations.

As part of its ongoing work, the HLTF needs to discuss and agree on sharing protocols with the Aid organisations. Clarity is also needed on State-level training sessions and interpretation and application of COVID-19 case definitions, COVID-19 testing strategy, and protocol on raising COVID-19 Alerts.

2. Laboratory Services

- Testing is a key function in the management of this pandemic. More testing using Abbot platform, GeneXpert, and scaling up the PCR testing in the states other than in Juba is recommended. In addition, a sustainable supply of laboratory items must be ensured.
- There is a need to increase human resource capacity in the PCR Laboratory to increase testing capability, particularly for contacts.
- Better connection of the Laboratory with the supply chain for all the needed items by the laboratory
- Training on sample management for all technicians in all the 10 states and the three Administrative Areas is urgently needed.
- Increase human resource capacity commensurate with needs of the pandemic must be defined and funded accordingly.

Hazard Containment

Noting that the curfew is restricting case management and laboratory activities, it is important to ensure movement of COVID-19 personnel and supplies during curfew time.

Conclusions

Implementation of COVID-19 prioritized response activities are ongoing across all pillars following confirmation of four cases in the country.

Funding remains challenging, although allocations have been formally announced by the Government, with the need to expand activities in all states, including IDP Protection of Civilian (PoC) sites and refugee settlements.

At this point, South Sudan is still conducting epidemiological investigation and transmission classification remains pending.

UPDATE:

By 30 April, 2020, the number of confirmed cases in South Sudan was 35, with the highest single-day reported cases of 28 on 28 April, 2020.